ABSTRACT

A time scaling process for a multi-channel (e.g., stereo) audio signal uses a common time offsets for all channels and thereby avoids fluctuation in the apparent location of a sound source. In the time scaling process, common time offsets correspond to respective time intervals of the audio signal. Data for each audio channel is partitioned into frames corresponding to the time intervals, and all frames corresponding to the same interval use the same common time offset in the time scaling process. The common time offset for an interval can be derived from channel data collectively or from separate time offsets independently calculated for the separate channels. Preprocessing can calculate the common time offsets for inclusion in an augmented audio data structure that a low-processing-power presentation system uses for real-time time scaling operations.